

30. A semiconductor device with a lead which is made of Cu or a Cu alloy and on which a plating layer of an Sn-Bi alloy is provided, wherein Sn-Bi alloy of the plating layer comprises from 1 to 20 wt% of Bi.

31. A semiconductor device according to claim 30, wherein the lead is a TSOP lead.

32. A semiconductor device with a lead made of Cu or a Cu alloy, wherein an Sn-Bi alloy layer as a surface layer is directly formed on the lead, Sn-Bi alloy of the alloy layer comprising from about 1 to about 20 wt% of Bi.

33. A semiconductor device according to claim 32, wherein the lead is a TSOP layer.

34. A semiconductor device with a lead which is made of Cu or a Cu alloy and on which a plating layer of an Sn-Bi alloy is formed as a surface layer without any plating layer between the lead and the Sn-Bi alloy plating layer, Sn-Bi alloy of the alloy plating layer comprising from about 1 to about 20 wt% of Bi.

35. A semiconductor device according to claim 34, wherein the lead is a TSOP lead.

36. A semiconductor device with a lead which is made of an Fe-Ni alloy and on which a plating layer of an Sn-Bi alloy is formed as a surface layer, Sn-Bi alloy of the alloy plating layer comprising from 1 to 20 wt% of Bi.

37. The semiconductor device according to claim 36, wherein the lead is a TSOP layer.

38. A semiconductor device with a lead made of an Fe-Ni alloy, wherein an Sn-Bi alloy layer as a surface layer is directly formed on the lead, Sn-Bi alloy of the alloy layer comprising from about 1 to about 20 wt% of Bi.

39. A semiconductor device according to claim 38, wherein the lead is a TSOP lead.